a non-magnetic substrate;

a non-magnetic metal ground layer formed on a main surface side of the non-magnetic substrate and containing Ru at least 20 at%; and

a magnetic layer formed on the non-magnetic metal ground layer and having a metal magnetic thin film.

2. (Amended) The medium according to claim 1, wherein the non-magnetic metal ground layer is constructed by layering a plurality of layers, wherein each layer includes Ru at at least 20 at % different compositions containing Ru and element other than Ru, respectively.

3. (Amended) The medium according to claim 1, wherein the non-magnetic metal ground layer has a graded composition such that a composition of the non-magnetic metal ground layer continuously changes.

4. (Amended) The medium according to claim 1, wherein the non-magnetic metal ground layer is made of alloy of Ru and at least one kind of material selected from a group consisting of Cr, Ti, Ta, Zr, Hf, Fe, Co, Mn, Si, Al, Ag, Au, and Ir, and a composite ratio of Ru in the alloy is set to at least 50 at%.

5. (Amended) The medium according to claim 1, wherein the non-magnetic metal ground layer is made of an Ru alloy and at least one kind of material selected from a group consisting W, Mo, V, Nb, and B, and a composite ratio of Ru in the alloy is set to at least 20 at% .

6. (Amended) The medium according to claim 1, wherein the non-magnetic metal ground layer is made of alloy of Ru and at least one kind of material selected from a group consisting of Cu,Ni, Pd, Pt, Y, and C, and a composite ratio of Ru in the alloy is set to 80 at% or more.

7. (Amended) The medium according to claim 1, wherein the non magnetic metal ground layer contains at least one of oxygen and nitrogen.

8. (Amended) The medium according to claim 7, wherein the at least one of oxygen and nitrogen is contained at a composite ratio of 0.2 to 10 at% in the non-magnetic metal ground layer.

9. (Amended) The medium according to claim 1, wherein the non-magnetic metal ground layer is constructed by adding at least one kind of material selected from a group consisting of oxide, nitride, carbide, and carbon and formed in a granular structure.

10. (Amended) The medium according to claim 9, wherein the oxide includes at least one kind of material selected from a group consisting of SiO2, Al2O3, TiO2, Ta2O3, ZrO, Y2O3, and MgO, the nitride is at least one kind of material selected from a group consisting of TiN, BN, AlN, Si3N4, and TaN, and the carbide is at least one kind of material selected from a group consisting of SiC, TiC, B4C, and TaC.

11. (Amended) The medium according to claim 1, wherein the magnetic layer is constructed by layering a plurality of metal magnetic thin films, with at least one intermediate layer inserted there between, the intermediate layer being made of at least one kind of material selected from a group consisting of Pt, Pd, and Ni.

12. (Amended) The medium according to claim 1, wherein the magnetic layer contains at least one kind of material selected from a group consisting of Cr, Mo, W, V, Nb, Zr, Hf, Ta, Ru, Rh, Ir, Ti, B, P, and C at 0.5 to 25 at%.

13. (Amended) The medium according to claim 1, wherein the magnetic layer contains at least one of oxygen and nitrogen at 0.2 to 15 at%.

14. (Amended) The medium according to claim 1, wherein the magnetic layer is constructed by at least one kind of material selected from a group consisting of oxide, nitride, and carbide, formed in a granular structure.

15. (Amended) The medium according to claim 1, wherein the magnetic layer is constructed by layering a plurality of metal magnetic thin films, with at least one separation layer inserted there between, the separation layer being made of Ru singly or alloy of Ru and at least one kind of material selected from a group consisting of Al, Ti, V, Cr, Fe, Mn, Co, Ni, Cu, Y, Zr, Nb, Mo, Rh, Pd, Ag, Hf, Ta, W, Ir, Pt, Au, Si, B, and C.

16. (Amended) The medium according to claim 15, wherein the separation layer includes Ru or an Ru alloy, and further includes one of an oxide, a nitride, a carbide, or an oxide, nitride, or carbide mixture and at least one kind of material selected from a first group consisting of Cr, Mo, W, Ti, Ta, Nb, Ni, Cu, Al, V, Zr, Hf, C, B, and Si, and a second group consisting of oxide, nitride, and carbide, the oxide including SiO2, Al2O3, TiO2, Ta2O3, ZrO, Y2O3, and MgO, the nitride including TiN, BN, AlN, Si3N4, and TaN, and the carbide including SiC, TiC, B4C, and TaC, the separation layer is mixed with at least one kind of material selected from the second group, or the separation layer is mixed with at least one kind of material selected from the first and second groups.

REMARKS

This submission is in full response and timely to the aforementioned Office Action. By this amendment, claim 2 was canceled, claims 1 and 3-16 were amended to improve structure and idiomatic English. No new matter has been added. Claims 1 and 3-16 are pending.

Objection to the Abstract

The Abstract was objected to for allegedly including improper language and being of an improper format. Applicant has amended the Abstract in a manner that addresses and remedies the issues raised in the Office Action. For example, Applicant has amended the Abstract to remove legal phraseology. As a result, Applicants respectfully request that the objection to the Abstract be withdrawn.

Rejections Under 35 U.S.C. §112

Claims 2, 4-6, 9-12, 15, and 16 were rejected under 35 U.S.C. §112, second paragraph for alleged indefiniteness. Because claim 2 has been canceled the rejection